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| <p>(51) International Patent Classification ⁶ : A46B 15/00, 5/02</p> | <p>A1</p> | <p>(11) International Publication Number: WO 99/49754 (43) International Publication Date: 7 October 1999 (07.10.99)</p> |
| <p>(21) International Application Number: PCT/ZA99/00010 (22) International Filing Date: 31 March 1999 (31.03.99) (30) Priority Data: 98/0696 31 March 1998 (31.03.98) ZA (71)(72) Applicant and Inventor: BRITTON, Anthony, Sidney [ZA/ZA]; 202 Corlett Drive, Bramley 2090 (ZA). (74) Agents: DUNLOP, Alan, J., S. et al.; Hahn & Hahn Inc., 222 Richard Street, Hatfield, Pretoria 0083 (ZA).</p> | | <p>(81) Designated States: AE, AL, AM, AT, AT (Utility model), AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ (Utility model), DE, DE (Utility model), DK, DK (Utility model), EE, EE (Utility model), ES, FI, FI (Utility model), GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (Utility model), SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</p> <p>Published With international search report.</p> |
| <p>(54) Title: A HYGIENIC DEVICE</p> <p>(57) Abstract</p> <p>A tongue cleaner (10) is disclosed which comprises an elongate element (12) which constitutes a handle for a tooth brush. Two sets of ribs (42, 44) are provided. The set of ribs (42) is a fine set and the other set of ribs (44) a coarser set. The ribs extend across the handle. Two flanks (48) meet to form a tongue scraping edge (46). A depression (36) is bounded by a part circular edge (38) constituted by inner and outer curving flanks which intersect to bound the part circular edge.</p> | | |

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A HYGIENIC DEVICE

FIELD OF THE INVENTION

THIS INVENTION relates to a hygienic device in the form of a tongue
5 cleaner.

BACKGROUND TO THE INVENTION

It is known that a coating on the tongue can give rise to halitosis. The
present invention seeks to provide an efficient tongue cleaner.

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BRIEF DESCRIPTION OF THE INVENTION

According to the present invention there is provided a tongue cleaner
which comprises an elongate element having a scraping edge which extends in the
direction of the length of the element, a set of parallel ribs which extend transversely
15 of the element and a circular depression in said element at one end thereof, at least
a part of the periphery of said depression being bounded by a curving inner flank
and by a curving outer flank, the curving flanks intersecting to provide a curving
tongue cleaning edge.

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In a preferred form there are two sets of parallel ribs, the pitch, and the
root to crest dimension, of one set of parallel ribs being greater than the pitch and
root to crest dimensions of the other set. Said sets of ribs can be on opposed faces
of said elongate element.

The cleaner can include a pair of flanks extending in the direction of the length of the elongate element of the tongue cleaner, the flanks intersecting to provide said scraping edge which extends along the element.

5 BRIEF DESCRIPTION OF THE DRAWINGS

For a better understanding of the present invention, and to show how the same may be carried into effect, reference will now be made, by way of example, to the accompanying drawings in which:-

10 Figure 1 is a plan view of the underside of a combined tongue cleaner and tooth brush; and

Figure 2 is a side elevation of the combined tongue cleaner and tooth brush.

DETAILED DESCRIPTION OF THE DRAWINGS

15 The tongue cleaner 10 illustrated comprises an elongate element 12 which is of moulded synthetic plastics material and is in the form of a tooth brush handle. One end of the element is in the form of a flat head 14 with holes 16 in it for receiving groups of tooth brush bristles 18 (Figure 2).

20 The element 12 is curved in two planes. When viewed in plan (Figure 1) it has two curves therein. The first curve starts at the head 14 and, as viewed in Figure 1, is a right hand curve 20. The right hand curve 20 merges by way of a generally straight section 22 with a left hand curve 24.

The element 12 is at its narrowest closest to the head 14 and becomes progressively wider through the section 22 and curve 24 to reach a maximum width of the zone 26. The element becomes slightly narrower at the end remote from the
5 head 14.

When viewed in side elevation the handle has a downward bend 28 immediately adjacent the head 14. A sloping portion 30 leads downwardly from the bend 28 to a second bend 32 of opposite hand. Thus the head 14, and the portion
10 34 which is beyond the bend 32, are generally parallel to one another but in different planes.

At the end of the element 12 remote from the head 14 there is, in the top face thereof, a circular depression 36. The depression 36 is bounded by a part
15 circular raised edge 38 which is itself bounded by an inner curving flank and an outer curving flank. The edge 38, as viewed in Figure 1, merges at each end thereof with a ribbed section 40 of the cleaner 10. The edge 38 is constituted by said curving flanks which met at a relatively sharp angle and extend through approximately 270 degrees.

A portion 40 extends from the widest zone 26 to the depression 38 and comprises two sets of parallel spaced ribs 42 and 44. Each rib of each set extends obliquely to the length of the portion 34 of the element. The ribs 42 are relatively
5 close together as compared to the ribs 44, that is, the pitch of the ribs 42 is less than the pitch of the ribs 44. In addition the root to crest dimension of the ribs 42 is smaller than the root to crest dimension of the ribs 44. The ribs 42 extend across the top face of the element 12 and the ribs 44 across the underface.

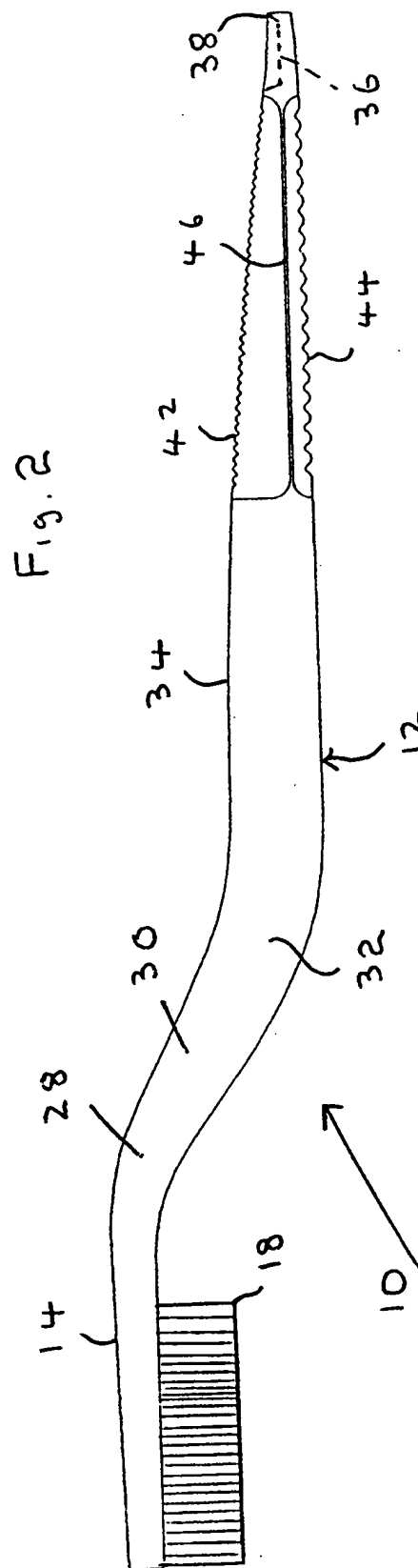
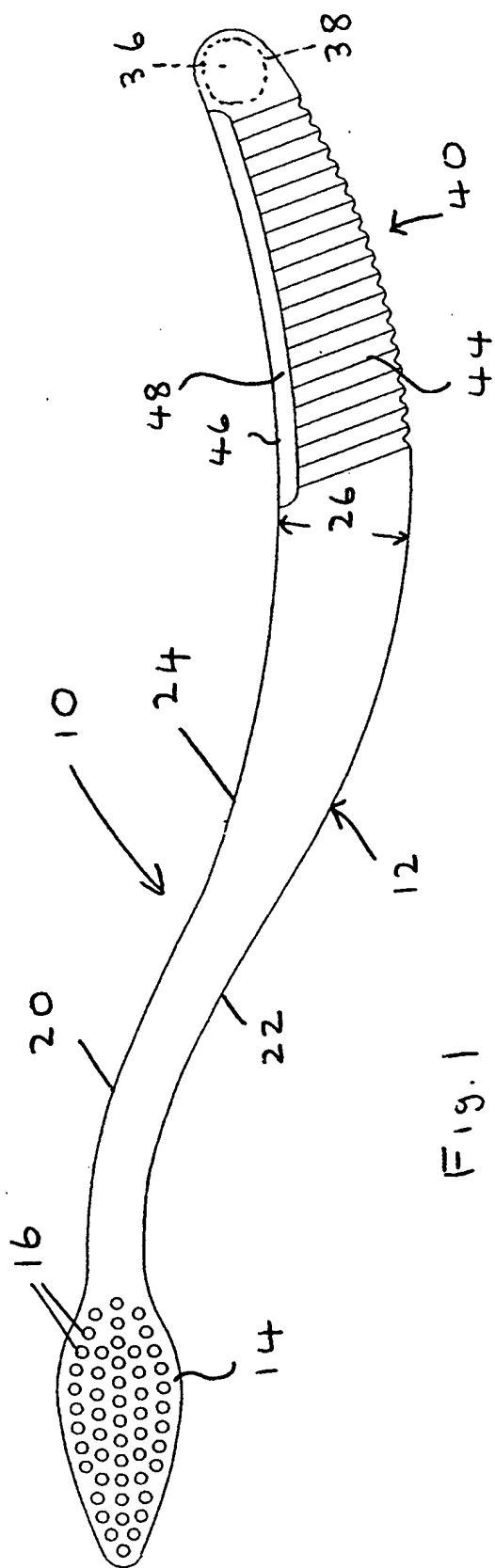
10 An edge 46 extends in the direction of the length of the portion 34 from the region of the circular wall 38 and along the inside of the curve 24. The edge 46 is bounded by flanks 48 which intersect so that the edge 46 is relatively sharp. The ribs 44 extend from one of the flanks 48, across the underface of the element 12 to the outside of the curve 24. The ribs 42 extend from the other flank 48 across the
15 top face of the handle and terminate at the outside edge of the curve 24.

CLAIMS:

1. A tongue cleaner which comprises an elongate element having a scraping edge which extends in the direction of the length of the element, a set of parallel ribs which extend transversely of the element and a circular depression in said element at one end thereof, at least a part of the periphery of said depression being bounded by a curving inner flank and by a curving outer flank, the curving flanks intersecting to provide a curving tongue cleaning edge.
2. A tongue cleaner according to claim 1 and including two sets of parallel ribs, the pitch, and the root to crest dimension, of one set of parallel ribs being greater than the pitch and root to crest dimensions of the other set.
3. A tongue cleaner according to claim 2, wherein said sets of ribs are on opposed faces of said elongate element.
4. A tongue cleaner as claimed in claim 1 and including a pair of flanks which are elongate in the direction of the length of said elongate element, the flanks intersecting to provide said scraping edge.
5. A tongue cleaner as claimed in claim 1, 2, 3 or 4 and including tooth cleaning bristles at the other end of said element.

6. A tongue cleaner as claimed in claim 1, substantially as herein described and illustrated.

7. A new tongue cleaner substantially as herein described.



INTERNATIONAL SEARCH REPORT

International Application No

PCT/ZA 99/00010

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 A46B15/00 A46B5/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 A46B A61B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-----------------------|
| A | US 4 610 043 A (VEZJAK WILLIAM) 9 September 1986 (1986-09-09) column 2, line 6 - line 58; figures 1-3 | 1,7 |
| A | US 2 583 750 A (RUNNELS G D) 29 January 1952 (1952-01-29) claim 1; figures 1,2 | 1,7 |
| A | US 4 356 585 A (WARD HOWARD L ET AL) 2 November 1982 (1982-11-02) abstract; figure 1 | 1,7 |

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
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| US 4610043 A | 09-09-1986 | NONE | |
| US 2583750 A | 29-01-1952 | NONE | |
| US 4356585 A | 02-11-1982 | NONE | |